

What is claimed is:

1. A rotary pulse type filter dust collector comprising:

5 a dust collector body having an intermediate plate;

a number of filter bags arranged vertically in the dust collector body;

a compressed air tank located inside a machine room formed on the intermediate plate, and movably mounted above the intermediate plate by means of driving means, the compressed air tank receiving compressed air introduced from the outside;

a number of nozzles perforating the compressed air tank;

15 diaphragm valves connected to the nozzles respectively and correspondingly;

mechanical 3-way valves for driving the plurality of nozzles and diaphragm valves of the compressed air tank by predetermined groups in order to clean the corresponding filter bags, the mechanical 3-way valves of the same number as the groups being mounted in the compressed air tank;

20 a number of protrusions formed on the inner walls of the machine room to change the air flow direction of the 3-way valves by pressing manipulation levers of the 3-way valves;

25 a reduction motor and an mechanical transmitting device for driving the compressed air tank; and

an inverter controller for controlling a cleaning interval of the dust collector by controlling the rotational speed of the driving means.

30 2. The rotary pulse type filter dust collector according to claim 1, wherein the 3-way valve includes:

a valve entrance hole for receiving compressed air from the compressed air tank;

a valve exit hole for discharging the compressed air to a side of the diaphragm valve; and

5 a manipulation lever for generating signals in contact with the protrusions to change it's air flow direction.

3. The rotary pulse type filter dust collector according to claim 1, wherein the compressed air tank is
10 formed in a fan shape or a rectangular-shape according to the shape of the dust collector body.

4. The rotary pulse type filter dust collector according to claim 3, wherein if the compressed air tank is
15 in the fan shape, the 3-way valve is located on the circumferential surface of the compressed air tank, and is in contact or not in contact with the protrusions formed on the inner walls of the machine room when the fan-shaped compressed air tank is rotated on the center of the
20 intermediate plate.

5. The rotary pulse type filter dust collector according to claim 3, wherein if the compressed air tank is in a hexahedral shape, the 3-way valves are located on both
25 side surfaces of the compressed air tank, and is in contact or not in contact with the protrusions formed on side surfaces of the machine room when the compressed air tank performs a reciprocating motion.

30 6. The rotary pulse type filter dust collector according to claim 1, wherein the driving means is arranged on the side surface or the upper portion of the machine room.

7. The rotary pulse type filter dust collector according to claim 6, wherein the driving means arranged on the side surface of the machine room includes:

- 5 at least one wheel mounted on the lower end of the compressed air tank in a rolling way;
 - a reduction motor;
 - a driving shaft and a driving sprocket connected to the reduction motor;
- 10 a driven shaft and a driven sprocket separated from the driving sprocket at opposite side;
 - a chain for connecting the driving sprocket and the driven sprocket with each other; and
 - a protrusion formed on the chain for driving the
- 15 compressed air tank.

8. The rotary pulse type filter dust collector according to claim 4, 6, 7, wherein the inverter controller controls the cleaning interval by means of controls the

20 rotational speed of the reduction motor.